

P5878a



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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Number: 6,628,037
Issued: September 30, 2003
Name of Patentee: Kinya Matsuzawa
Serial No.: 10/002,033
Filing Date: November 15, 2001
Title of Invention: Power Generator, Electronic Device Using the Same, Method of Setting Plate Thickness in a Magnetic Circuit in Electronically Controlled Timepiece and Power Generator

CERTIFICATE OF MAILING

I hereby certify that this correspondence, and the documents attached hereto, are being deposited with the United States Postal Service as "First Class" mail with sufficient postage in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this date.

Date: March 22, 2005

Ann F. George
Ann F. George

**REQUEST FOR RECONSIDERATION OF REQUEST FOR CERTIFICATE
OF CORRECTION OF PATENT
FOR PTO MISTAKE (37 CFR §1.322(a))**

Attention Certificate of Corrections Branch
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Patentee submitted a Supplemental Request for Certificate of Correction that was received by the Patent Office on March 29, 2004 (Exhibit A- front page only).

In response the Patent Office mailed a letter on March 9, 2005 (Exhibit B) that stated in part "alleged error(s) Changes to Claim 17 change scope of claims since 'a processor for driving...' was not in original claim 17 & adds new matter thereto."

Patent Claim 17 corresponds to application Claim 15 (Exhibit C).

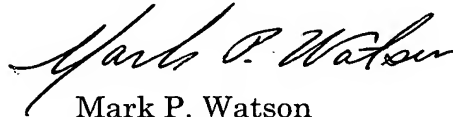
Contrary to the Patent Office's assertion, application Claim 15 does have the language "a processor for driving...". Please see page 32 of the specification (Exhibit D). Please see also the Preliminary Amendment received by the Patent Office on June 2, 2002, especially pages 2 and 3 (pages 1-3 included as Exhibit E).

REQUEST FOR CERTIFICATE OF CORRECTION OF
PATENT FOR PTO MISTAKE (37 CFR §1.322(a))

In view of the foregoing, reconsideration is requested. The Patent Office is authorized to charge any fees associated with this request to Deposit Account No. 19-2746.

Patentee's undersigned attorney may be reached at the telephone number listed below. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,



Mark P. Watson
Registration No. 31,448

Please address all correspondence to:
Epson Research and Development, Inc.
150 River Oaks Parkway, Suite 225
San Jose, CA 95134
Customer No. 20178
Phone: (408) 952-6000
Facsimile: (408) 954-9058

Date: March 22, 2005

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Number: 6,628,037
Issued: September 30, 2003
Name of Patentee: Kinya Matsuzawa
Serial No.: 10/002,033
Filing Date: November 15, 2001
Title of Invention: Power Generator, Electronic Device Using the Same, Method of Setting Plate Thickness in a Magnetic Circuit in Electronically Controlled Timepiece and Power Generator

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Date: March 24, 2004

Ann P. George

SUPPLEMENTAL REQUEST FOR CERTIFICATE OF CORRECTION OF
PATENT FOR PTO MISTAKE (37 CFR §1.322(a))

NOTE: This Supplemental Request supercedes the Request received by the Patent Office on February 23, 2004.

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Certificate
APR 01 2004
of Correction

Sir:

It is noted that errors appear in this patent of a clerical, typographical or minor nature or character, as more fully described below, due to a mistake by the Patent and Trademark Office.

Attached hereto in duplicate is Form PTO-1050 with at least one copy being suitable for printing.

The exact locations where the errors occur in the patent are:

Claim 3:

Column 19, line 5, please change " $d = \sqrt{0.137\rho} \cdot f^{-0.375} B^{-0.175}$

(3)" to " $d = \sqrt{0.137\rho} \cdot f^{-0.375} B_m^{-0.175}$ (3)--

EXHIBIT

A

APR 07 2004



MPW

UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

Date Mailed : March 9, 2005

Patent No. : 6,628,037
Patent Issued : September 30, 2003
Docket No. : P5878A

Re: Request for Certificate of Correction

Consideration has been given your request for the issuance of a certificate of correction for the above-identified patent under the provisions of Rule(s) 1.322.

The alleged error(s) Changes to Claim 17 change scope of claims since "a processor for driving ..." was not in original claim 17 & adds new matter thereto. the patent is printed in accordance with the record. In view of the foregoing, your request, in this matter(s), is hereby denied.

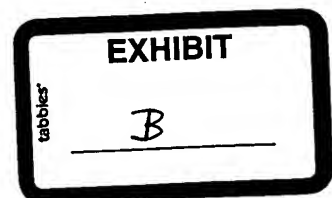
A certificate of correction will be issued to correct the remaining error(s) noted in your request.


Further consideration/reconsideration will be given upon receipt of a Request for Reconsideration under, under the provision of U.S.C. 254 or 255 (C.F.R. 1.322 or 1.323), accompanied by the appropriate response or fee of \$100, which should be directed to Decisions & Certificates of Correction Branch.


Ennis Young
Legal Instrument Examiner
(703) 305-8028

MAR 14 2005

For Cecelia B. Newman, Supervisor
Decisions & Certificates of Correction Branch
(703) 308-9390 ext. 117 or (703) 303-8309 (Receptionist)



Issue Classification 	Application No.	Applicant(s)	
	10/002,033	MATSUZAWA, KINYA	
	Examiner	Art Unit	
	Burton S. Mullins	2834	

ISSUE CLASSIFICATION									
ORIGINAL				CROSS REFERENCE(S)					
CLASS		SUBCLASS		CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)				
310		254		310	216				
INTERNATIONAL CLASSIFICATION									
H	0	2	K	001/12					
				/					
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				/					
				/					
n/a				 Burton Mullins 18 March 2003				Total Claims Allowed: 28 O.G. Print Claim(s) 1 O.G. Print Fig 2	
(Assistant Examiner)		(Date)		(Primary Examiner)		(Date)			

<input type="checkbox"/> Claims renumbered in the same order as presented by applicant				<input type="checkbox"/> CPA				<input type="checkbox"/> T.D.				<input type="checkbox"/> R.1.47			
Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original		
1	1		31		61		91		121		151		181		
2	2		32		62		92		122		152		182		
3	3		33		63		93		123		153		183		
4	4		34		64		94		124		154		184		
5	5		35		65		95		125		155		185		
8	6		36		66		96		126		156		186		
9	7		37		67		97		127		157		187		
10	8		38		68		98		128		158		188		
11	9		39		69		99		129		159		189		
12	10		40		70		100		130		160		190		
13	11		41		71		101		131		161		191		
6	12		42		72		102		132		162		192		
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18	16		46		76		106		136		166		196		
19	17		47		77		107		137		167		197		
20	18		48		78		108		138		168		198		
21	19		49		79		109		139		169		199		
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14	24		54		84		114		144		174		204		
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27	26		56		86		116		146		176		206		
28	27		57		87		117		147		177		207		
26	28		58		88		118		148		178		208		
	29		59		89		119		149		179		209		
	30		60		90		120		150		180		210		

U.S. Patent and Trademark Office

Best Available Copy

EXHIBIT
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of Paper No. 0303

of the stator and the magnetic core is made of a single layer or a lamination of the soft magnetic material of the plate thickness d.

13. The power generator according to claim 12, wherein the soft magnetic material
5 constituting at least one of the stator and the magnetic core has a lamination structure, and the respective layers forming the lamination structure have a minimum thickness of not less than 0.05mm.

14. An electronic device, comprising:
10 the power generator according to any one of claims 1 to 13; and
a processor actuated by the electric energy generated by the power generator.

15. An electronically controlled timepiece, comprising:
the power generator according to any one of claims 1 to 14; and
15 a processor for driving a time display by the electric energy generated by the
power generator.

16. A method of setting plate thickness in a magnetic circuit in a power generator, the
power generator including a rotor having a permanent magnet, a stator and a magnetic core
20 made of a soft magnetic material constituting the magnetic circuit and a coil wound around
the magnetic core,

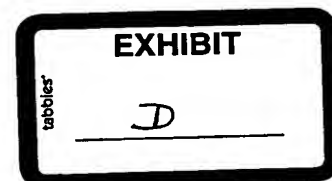
wherein the plate thickness d is set at a value represented by the following formula
of

$$d = \sqrt{\frac{k_h}{k_e} \rho \cdot f^{-0.375} B_m^{-0.175}} \quad (1)$$

25

where k_h represents hysteresis loss coefficient, k_e represents eddy-current loss
coefficient, ρ ($\Omega \cdot m$) represents resistivity, f (Hz) represents frequency and B_m (T) represents
maximum amplitude magnetic flux density of the soft magnetic material.

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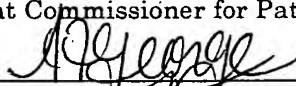
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor: Kinya Matsuzawa Group Art Unit: 2834
Serial No.: 10/002,033 Examiner: Not Yet Assigned
Filed: November 15, 2001
Title: Power Generator, Electronic Device Using The Same, Method Of
Setting Plate Thickness In A Magnetic Circuit In Electronically
Controlled Timepiece And Power Generator

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class mail in an envelope addressed to Assistant Commissioner for Patents, Washington, D.C. 20231 on this date.

Date: May 13, 2002


Ann F. George

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Preliminary to examination please amend the above identified application as follows:

IN THE CLAIMS

Please substitute the following clean amended claims 12, 14, 15 and 23 for the pending claims with the same number. Marked-up versions of the amended claims follow the "Remarks" section of this amendment.

12. (Amended) The power generator according to claim 1, wherein at least one of the stator and the magnetic core is made of a single layer or a lamination of the soft magnetic material of the plate thickness d.

14. (Amended) An electronic device, comprising:

a power generator comprising:

a rotor having a permanent magnet;

EXHIBIT

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a stator and a magnetic core of soft magnetic material constituting a magnetic circuit; and

a coil wound around the magnetic core,

wherein the plate thickness d (m) of the soft magnetic material constituting at least one of the stator and the magnetic core is set at a value represented by the following formula of

$$d = \sqrt{\frac{k_h}{k_e}} \rho \cdot f^{-0.375} B_m^{-0.175} \quad (1)$$

where k_h represents hysteresis loss coefficient, k_e represents eddy-current loss coefficient, ρ ($\Omega \cdot m$) represents resistivity, f (Hz) represents frequency and B_m (T) represents maximum amplitude magnetic flux density of the soft magnetic material; and

a processor actuated by the electric energy generated by the power generator.

15. (Amended) An electronically controlled timepiece, comprising:

a power generator comprising:

a rotor having a permanent magnet;

a stator and a magnetic core of soft magnetic material constituting a magnetic circuit; and

a coil wound around the magnetic core,

wherein the plate thickness d (m) of the soft magnetic material constituting at least one of the stator and the magnetic core is set at a value represented by the following formula of

$$d = \sqrt{\frac{k_h}{k_e}} \rho \cdot f^{-0.375} B_m^{-0.175} \quad (1)$$

where k_h represents hysteresis loss coefficient, k_e represents eddy-current loss coefficient, $\rho(\Omega m)$ represents resistivity, f (Hz) represents frequency and B_m (T) represents maximum amplitude magnetic flux density of the soft magnetic material; and

a processor for driving a time display by the electric energy generated by the power generator.

23. (Amended) The method of setting plate thickness in a magnetic circuit in a power generator according to claim 21,

wherein the soft magnetic material constituting at least one of the stator and the magnetic core has a lamination structure and the respective layers forming the lamination structure have a minimum thickness of not less than 0.05mm.

Please add the following new claims 24 to 28:

24. (New) The power generator according to claim 6, wherein at least one of the stator and the magnetic core is made of a single layer or a lamination of the soft magnetic material of the plate thickness d .

25. (New) The power generator according to claim 24, wherein the soft magnetic material constituting at least one of the stator and the magnetic core has a lamination structure, and the respective layers forming the lamination structure have a minimum thickness of not less than 0.05mm.

26. (New) An electronic device, comprising:

a power generator comprising:

a rotor having a permanent magnet;

a stator and a magnetic core of soft magnetic material constituting a magnetic circuit; and

a coil wound around the magnetic core,

wherein the plate thickness d (m) of the soft magnetic material constituting at least one of the stator and the magnetic core is set within a plate